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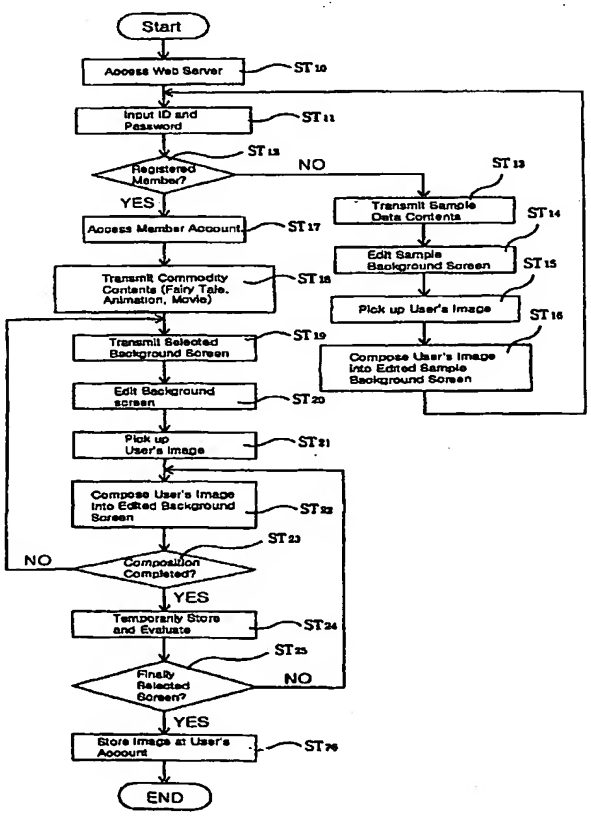
(54) Title: SERVICE SYSTEM FOR EDITING PERSONAL ELECTRON-BOOK OF REAL TIME IN INTERNET



(57) Abstract: Disclosed is a real-time personalized E-book editing service method through the Internet, in which a user can edit his or her personalized E-book and contents by freely composing and modifying his or her image into such real-time images are fairy tales, animations, dramas, movies, etc. on the web. The method includes the steps of: allowing a registered member to log on his or her account to receive commodity contents from an operator server; allowing a registered member to purchase a desired commodity and searching/selecting a desired data, from the transmitted commodity contents, and then send the selected data to the operator server; transmitting an image data of the selected commodity to the registered member in real time; allowing a registered member to directly compose and edit the image data of the transmitted commodity and an image of the registered member picked up using a web camera, and then send the composed image to the operator server; and evaluating the composed image produced by the registered member, storing the image at the member's account as an E-book and then transmitting the E-book to the registered member every time when he or she requests the E-book. As such, a user can represent his or her image as a background picture or a protagonist within a fairy tale, animation, a drama, a movie, etc., by freely composing and modifying his or her image into such real-time images as the fairy tale, movie, etc., which are transmitted on the web. Therefore, the present invention can improve efficiency of learning and allows a user to enjoy leisure along with learning.

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SERVICE SYSTEM FOR EDITING PERSONAL ELECTRON-BOOK OF REAL TIME IN INTERNET

Technical Field

The present invention relates to an E-book editing service method through the Internet, and more particularly, to a real time personalized E-book editing service method through the Internet in which a user can create his or her personalized E-book and contents through the Internet network, in such a manner that the user freely edit, directly compose in real time and modify his or her image into such real-time images as fairy tales, animations, dramas, movies, etc., which are transmitted on the web.

Background Art

Recently, rapid advancement in the data communication technology results in realizing construction of an ultra-high speed Internet communication network. This causes the Internet to become popularized. The Internet that was usually used by some specialized persons becomes utilized by most age groups. In particular, the Internet becomes important means that is a part of life in young students such as the teens and the twenties.

As such, as the Internet becomes popularized, revolution of information occurs in many fields. This revolution is now continually advanced. Particularly, there is a trend that limitation to a space for a library of books is overcome through remote learning by the medium of the Internet in the education (reading) field.

In the remote learning method using the Internet as above, E-book data providing type learning education has been widely known. In this E-book data providing type learning, a specific learning company prepares databased learning materials that were edited as moving pictures in accordance with the age groups. A learner downloads desired moving picture learning information to learn using a moving picture system such as a computer, etc.

For example, children or the youth who became a member can access a specific paid fairy tale site or an image service site through the Internet, select desired fairy tale contents, animation, cartooned lives of great men, a movie or the like, and then download a corresponding image in order to learn the fairy tale, the lives of great men, the movie, or the like while reading the feature story associated therewith.

The conventional learning method as described above, however, is limited to the past online learning method performed in the kindergarten or the school. Thus, this learning method does not improve learning efficiency. In other words, in the conventional learning method, characters, background pictures and/or the protagonist in the common fairy tale, the movie, or the like are always same regardless of children's talent, ability, interest, etc. For this reason, this learning method does not give a sense of accomplishment, motivation, etc., to the children or the youth. Furthermore, the children or the youth themselves do not easily take an interest in learning. As a result, its value in learning is lost although it is the best qualified learning. Therefore, there are several problems in that an expected learning effect could not be accomplished, and the like.

Disclosure of Invention

Accordingly, the present invention has been made in view of the above problems, and it is an object of the present invention is to provide a real-time personalized E-book editing service method through the Internet, through which a user can produce his or her personalized E-book and contents for repetitive learning by freely composing and modifying his or her image into such real-time images as a fairy tale, animation, a drama, a movie, etc. which are transmitted on the web, and a real-time personalized E-book service method through the Internet, by which E-book and contents where a user's image is composed into such images as the fairy tale, animation, drama, movie, etc. which are transmitted on the web, are stored on a compact disk, which is then provided to a corresponding user.

To achieve the above objects, according to the present invention, there is provided a real-time personalized E-book editing service method through the Internet, including the steps of: (1) allowing a registered member to log on his or her account; (2) confirming the log-on of the registered member to send commodity contents to the registered member; (3) allowing the registered member to purchase a desired commodity and search/select a desired data, from the transmitted commodity contents, (4) transmitting an image data of the selected commodity to the registered member in real time; (5) allowing the registered member to directly compose and modify the image data of the transmitted commodity and his or her image picked up using a web camera and then transmit the composed image to an operator server; and (6) evaluating the composed image of

the transmitted commodity to store the image at the member's account as an E-book.

Alternatively, the method may further include the step of temporarily storing the composed image of the commodity produced by the registered member as the E-book before the image is stored at the member's account.

Preferably, the commodity may include a fairy tale, animation, a movie and a drama, and is a still picture of one frame for the commodity.

Preferably, the method may further include the step of writing the stored E-book on a compact disk and then delivering the compact disk offline, at the request of the registered member.

By doing so, a user can produce his or her personalized E-book by freely composing his or her image into such images as the fairy tale, animation, drama, movie, etc., which are downloaded in real time through the Internet, and store the E-book at his or her account in a specific operator server and then download it from the server for learning, if necessary. Also, the user can directly receive offline the compact disk on which his or her personalized E-book is recorded.

As a result, unlike the existing method of reading common fairy tales, the user oneself becomes a protagonist in the fairy tale by producing oneself while directly confirming desired facial expression or an image of an original. Therefore, the present invention has advantages that it can improve a user's efficiency of learning and allows the user to enjoy leisure along with learning.

Accordingly, according to the real-time personalized E-book editing service method through the Internet of the present invention, a user can make his or her personalized

E-book by freely composing his or her image into such images as the fairy tale, animation, drama, movie, etc. on the web. The user can also store the E-book at his or her account in the operator server and then download his or her E-book from the server for learning, if necessary. Therefore, the present invention can improve learning efficiency and allow a user to enjoy leisure along with learning.

It is to be understood that both the foregoing general description and the following detailed description of the present invention are exemplary and explanatory and are intended to provide further explanation of the invention as claimed.

Brief Description of the Drawings

Further objects and advantages of the invention can be more fully understood from the following detailed description taken in conjunction with the accompanying drawings in which:

FIG. 1 is a block diagram illustrating the construction of a real-time personalized E-book editing service system through the Internet according to a preferred embodiment of the present invention;

FIG. 2 is a detailed block diagram illustrating the construction of the client web browser shown in FIG. 1;

FIG. 3 is a flowchart illustrating a process for explaining the real-time personalized E-book editing service method through the Internet according to a preferred embodiment of the present invention; and

FIG. 4 illustrates a process of making a fairy tale provided on the Internet in FIG. 1 into a personalized E-

book according to a preferred embodiment of the present invention wherein:

FIG. 4a shows a background screen of the fairy tale selected on the Internet,

FIG. 4b shows a screen on which a portion of the background screen in FIG. 4a is edited in order to facilitate composition, and

FIG. 4c shows a screen on which an image of a user picked up using the web camera in FIG. 2 is composed into the edited background screen.

Best Mode for Carrying Out the Invention

The present invention will now be described in detail in connection with preferred embodiments with reference to the accompanying drawings.

FIG. 1 is a block diagram of the construction of a real-time personalized E-book editing service system through the Internet according to a preferred embodiment of the present invention.

The real-time personalized E-book editing service system through the Internet according to the present invention largely comprises a plurality of clients 10-1 ~ 10-n, first ~ n^{th} web browsers 20-1 ~ 20-n, an Internet network 30 and an operator server 40. The first ~ n^{th} web browsers 20-1 ~ 20-n processes various data and user's images inputted through the keyboard and the mouse by the plurality of the clients 10-1 ~ 10-n, and also receive in real time specific information that is represented as characters, still pictures and moving pictures, through the Internet network 30, to display those information on a corresponding screen so that the plurality of the clients can view them. Furthermore, the operator server 40 is

connected to the Internet network 30. The operator server 4 stores still picture information such as a fairy tale, animation, a movie, etc., which will be provided to the plurality of the clients, transmits corresponding information to the plurality of the clients if the clients request specific information through the Internet network 30 in order to compose their images into still picture information, and manages composed image information.

In the above, the operator server 40 comprises a web server 100 connected to the Internet network 30, for processing data transmitted from the plurality of the web browsers 20-1 ~ 20-n and transmitting various information requested by the clients via the Internet network 30; an operating controller 101 for comparing and analyzing personal information, etc. of the clients inputted from the web server 100 and transmitting learning information, etc. necessary for the clients via the web server 100; a registered member storage unit 107 for storing member information on the clients inputted from the operating controller 101; a registered member image storage unit 105 for storing composition image information on the registered member inputted from the operating controller 101; an image fairy tale storage unit 103 for storing background images and contents such as a fairy tale, animation, a movie, etc. so that the clients can select them and providing corresponding stored image information to the web browsers 20-1 ~ 20-n of corresponding clients through the web server 100 and the Internet network 30 in accordance with control of the operating controller 101; an image fairy tale management unit 102, a registered member image management unit 104 and a registered member management unit 106 for managing the image fairy tale storage unit 103, the

registered member image storage unit 105 and the registered member storage unit 107, respectively, in accordance with control of the operating controller 101; an image composition program providing unit 108 for transmitting a image composition program to the web browser of a corresponding client through the web server 100 and the Internet network 30 in accordance with control of the operating controller 101, so that the client can compose and modify his or her image; an online payment unit 109 for confirming whether the payment is made online in accordance with control of the operating controller 101; and an image editing unit 110 for writing composition image information stored at the registered member image storage unit 105 on a compact disk in accordance with control of the operating controller 101 in order to deliver it to the client.

At this time, the image fairy tale management unit 102, the registered member image management unit 104 and the registered member management unit 106 in the operator server 40 are programs for controlling deletion or storage of information stored at the image fairy tale storage unit 103, the registered member image storage unit 105 and the registered member storage unit 107, respectively.

In the above, the plurality of the web browsers 20-1 ~ 20-n each comprises an Internet connection unit 28 connected to the Internet network 30, for interfacing information with the operator server 40; a keyboard (not shown); a central processing unit 23 for reading a program stored at a storage unit 27 to control the overall operation of the system through manipulation of the mouse; a hard disk controller 25 for controlling a hard disk 26 on which various data files are stored to execute reading and writing operations, in accordance with control of the

central processing unit 23; an image display device 24 such as the monitor, for displaying data downloaded via the Internet connection unit 28 and data read from the hard disk 26 on the screen in accordance with control of the central processing unit 23; a web camera 21 located at a position where the client is positioned, for picking up a user's image; and a camera driving unit 22 for controlling the web camera 21 to send the pickup image thereto in accordance with control of the central processing unit 23, and processing the inputted pickup image to send the results to the image display device 24 and the Internet network 30 through the central processing unit 23, as shown in FIG. 2.

FIG. 3 is a flowchart illustrating a process for explaining the real-time personalized E-book editing service method through the Internet according to the present invention, in which the plurality of the clients become members of the E-book edition programs operated by the operator server, compose their images into image information provided by the operator server and then store the composed images at the operator server as their E-books.

This will be below described in more detail with reference to FIG. 1 ~ FIG. 4.

As shown in FIG. 3, if the plurality of the clients 10-1 ~ 10-n request access to a specific website server using their web browsers 20-1 ~ 20-n (step ST10), the central processing units 23 within the corresponding web browsers 20-1 ~ 20-n receive data from the web server 100 of the operator server 40 through the Internet connection unit 28 and the Internet network 30a. A web document of a corresponding home page is thus displayed on the browser, i.e., the screen of the image display device 24 and a

member authentication window is displayed at the same time.

At this time, if the client inputs his or her ID and password using the keyboard (step ST11), the inputted ID and password are transmitted to the web server 100 of the operator server 40 via the plurality of the web browsers 20-1 ~ 20-n and the Internet network 30. The operating controller 101 then confirms whether the inputted ID and password are consistent with those previously set in the registered member storage unit 107 through the registered member image management unit 104.

If it is determined that the client is not a registered member (step ST12), the web server 100 reads sample data stored at the image fairy tale storage unit 103, i.e., the fairy tale image and contents through the image fairy tale management unit 102 and also reads the image composition program 108 from the image composition program providing unit 108. The web server 100 then transmits them to the web browsers 20-1 ~ 20-n of corresponding clients through the Internet network 30 (step ST13). The transmitted sample data is displayed on the image display device 24 via the Internet connection unit 28 and the central processing unit 23. At this time, the corresponding clients delete or modify their desired parts of the displayed sample background screen while being guided by the image composition program displayed on the image display device 24 (step ST14). Next, the clients pick up their image using the web camera 21 (step ST15) and then compose the pickup images into the deleted and modified part (step ST16). As such, if the clients are satisfactory to the results that their images are composed into the sample images transmitted from the operator server 40, they go through due formalities for becoming a member

to the web site of the operator server 4. At this time, in order to become a member, it is required that ID, password, personal information, etc. be inputted to the web document transmitted from the operator server 40, as described above.

If the client logs on the web page of the operating server 40 using his or her account after member registration procedure (step ST17), the operating controller 101 of the operator server 40 transmits commodity contents (fairy tale, movie, animation, etc.) that are stored at the image fairy tale storage unit 103 through the image fairy tale management unit 102, to the web browser of the client via the web server 100 and the Internet network 30 (step ST18), so that the client can select a desired image to compose.

Thereafter, if a corresponding registered member selects a desired content, information indicating that the rent on the selected data must be paid through the online payment unit 109 is displayed on the web browser of the client. After the member made payment online, the operating controller 101 of the operator server 40 reads the image of the fairy tale, the movie, animation, etc. in the selected content from the image fairy tale storage unit 103 and then activates them on the image display devices 24 of the web browsers 20-1 ~ 20-n in real time through the web server 100 and the Internet network 30. At the same time, the operating controller 101 transmits the image composition program stored at the image composition program storage unit 108 to the image display devices 24 for display (step ST19). Thus, the client can decide a frame of a corresponding image by clicking the edition button on the browser in order to represent a background, character or protagonist of a desired screen during learning as his or

her image, while confirming the image displayed in real time on the image display device 24.

In this state, if the client tries to edit the background screen, i.e., to compose a desired portion, for example a face with his or her face in a state where the fairy tale image is displayed on the screen, in accordance with the guidance of the image composition program, as shown in FIG. 4a, the client first edits the face in accordance with the guidance of the image composition program, as shown in FIG. 4b (step ST20). The web camera 21 then picks up the image of the client (step ST21). Next, the client composes his or her image using the image composition program provided by the operating server 40 on the screen for edition, as shown in FIG. 4c (step ST22). At this time, the color, brightness, size, etc. of the composed portion and the client's image can be adjusted to create a more natural image. Meanwhile, if the image composition is not finished (step ST23), the steps (ST19 ~ ST22) are repeated to complete the image composition.

After the image composition is completed as above, the modified image is transferred to the web server 100 of the operator server 40 via the Internet network 30 and is then temporarily stored at the registered member image storage unit 105 of the client's account for a given period of time. The image stored in the above step may be modified or selected again through processes after the step (ST21) depending on evaluation by the client (steps ST24 and ST25). Then, finally selected image information is stored at the registered member image storage unit 105 by units (in frame unit in case of the fairy tale) as the E-book (step ST26). Thereafter, the registered member can learn the personalized E-book depending on the image composition

through the Internet, if necessary.

Meanwhile, if the registered member wants to directly receive his or her E-book stored at the compact disk not through the Internet, the E-book is written into the compact disk in the image editing unit 110 of the operator server 40 and is then offline delivered to an address recorded on member information of the registered member storage unit 107, so that the registered member can directly receive the E-book.

Furthermore, in the prior art, a user does learning by accessing a specific paid fairy tale site or an image service site through the Internet to download a desired fairy tale, animation, cartooned lives of great men, a movie, etc. On the contrary, in the present invention, a user can freely compose his or her image into such images as a fairy tale, animation, a drama, a movie, etc. on the web and then learn his or her personalized E-book produced thus.

Industrial Applicability

As described above, unlike the conventional method of reading common fairy tales, according to the present invention, a user can represent his or her image as a background picture or a protagonist within a fairy tale, animation, a drama, a movie, etc., by freely composing and modifying his or her image into such real-time images as the fairy tale, movie, etc., which are transmitted on the web. Therefore, the present invention has new effects in that it can improve efficiency of learning and allows a user to enjoy leisure along with learning.

While the present invention has been described with

reference to the particular illustrative embodiments, it is not to be restricted by the embodiments but only by the appended claims. It is to be appreciated that those skilled in the art can change or modify the embodiments without departing from the scope and spirit of the present invention.

What Is Claimed Is:

1. A real-time personalized E-book editing service method through the Internet, comprising the steps of:

allowing a registered member to log on his or her account to receive commodity contents from an operator server;

allowing a registered member to purchase a desired commodity and searching/selecting a desired data, from the transmitted commodity contents, and then send the selected data to the operator server;

transmitting an image data of the selected commodity to the registered member in real time;

allowing a registered member to directly compose and edit the image data of the transmitted commodity and an image of the registered member picked up using a web camera, and then send the composed image to the operator server; and

evaluating the composed image produced by the registered member, storing the image at the member's account as an E-book and then transmitting the E-book to the registered member every time when he or she requests the E-book.

2. The method as claimed in claim 1, further comprising the step of temporarily storing the composed image of the commodity produced by the registered member as the E-book before the image is stored at the member's account.

3. The method as claimed in claim 1 or 2, wherein the commodity includes a fairy tale, animation, a movie and

a drama, and is a still picture of one frame for the commodity.

4. The method as claimed in claim 1, further comprising the step of writing the stored E-book on a compact disk and then delivering the compact disk offline, at the request of the registered member.

FIG.1

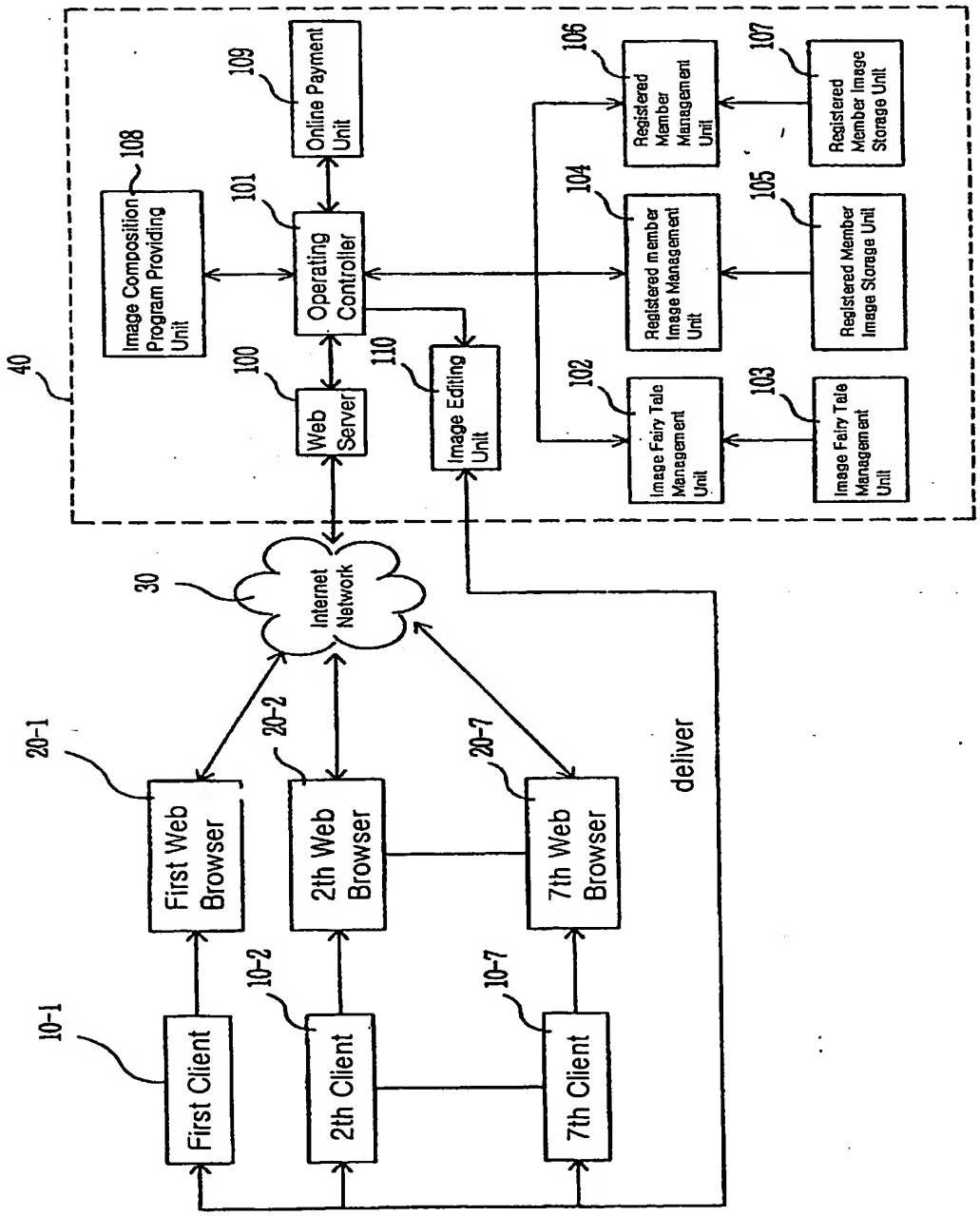
40
100
Web Server
101
Operating Controller
108
Image Composition Program Providing Unit
109
Online Payment Unit
110
Image Editing Unit
102
Image Fairy Tale Management Unit
103
Image Fairy Tale Management Unit
104
Registered member Image Management Unit
105
Registered Member Image Storage Unit
106
Registered Member Management Unit
107
Registered Member Image Storage Unit
30
Internet Network
20-1
First Web Browser
20-2
2th Web Browser
20-7
7th Web Browser
deliver
10-1
First Client
10-2
2th Client
10-7
7th Client

FIG.2

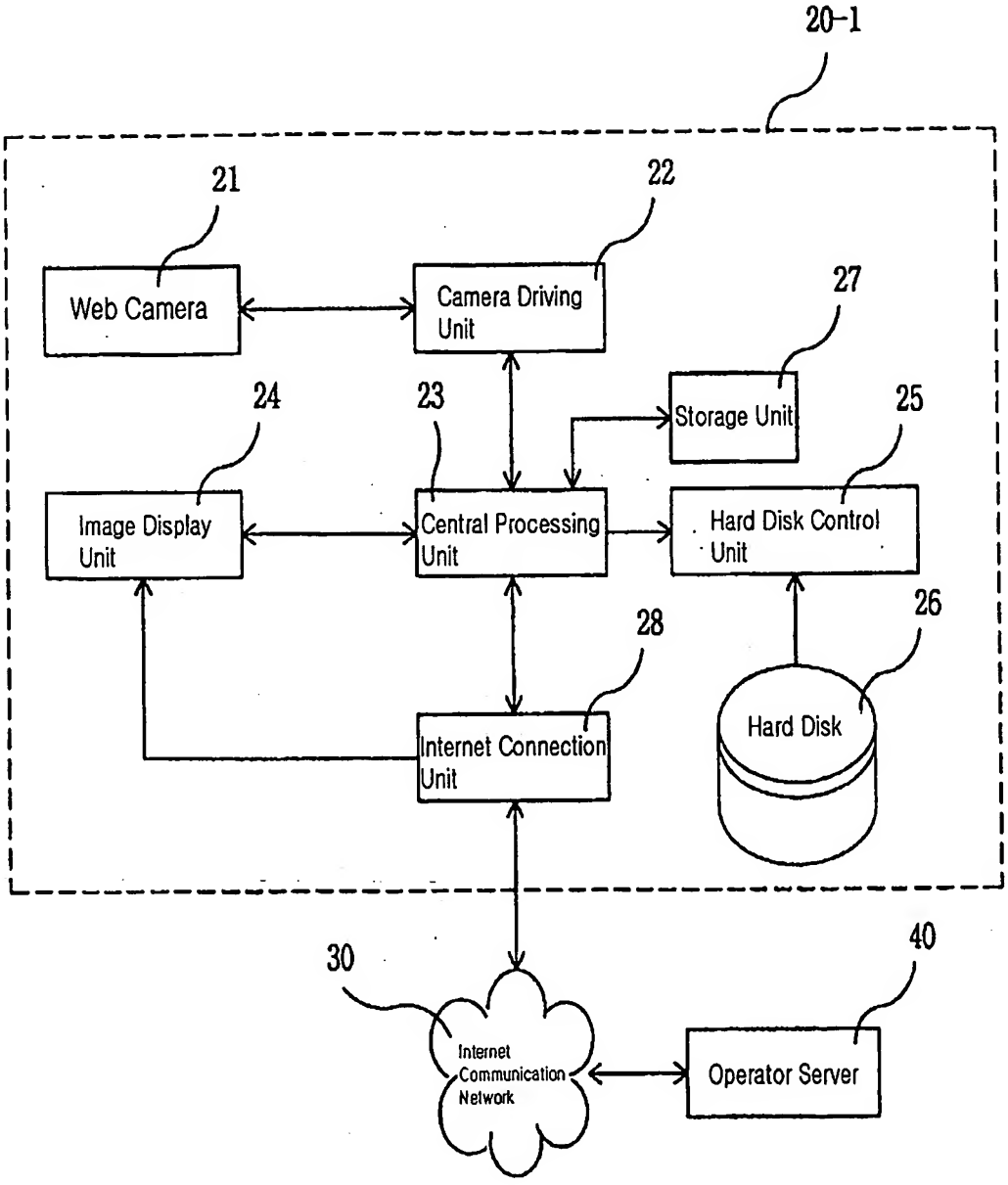
20-1
21
22
Web Camera
Camera Driving Unit
27
Storage Unit
24
23
25
Image Display Unit
Central Processing Unit
Hard Disk Control Unit
26
28
Hard Disk
Internet Connection Unit
30
40
Internet Communication Network
Operator Server

FIG.3

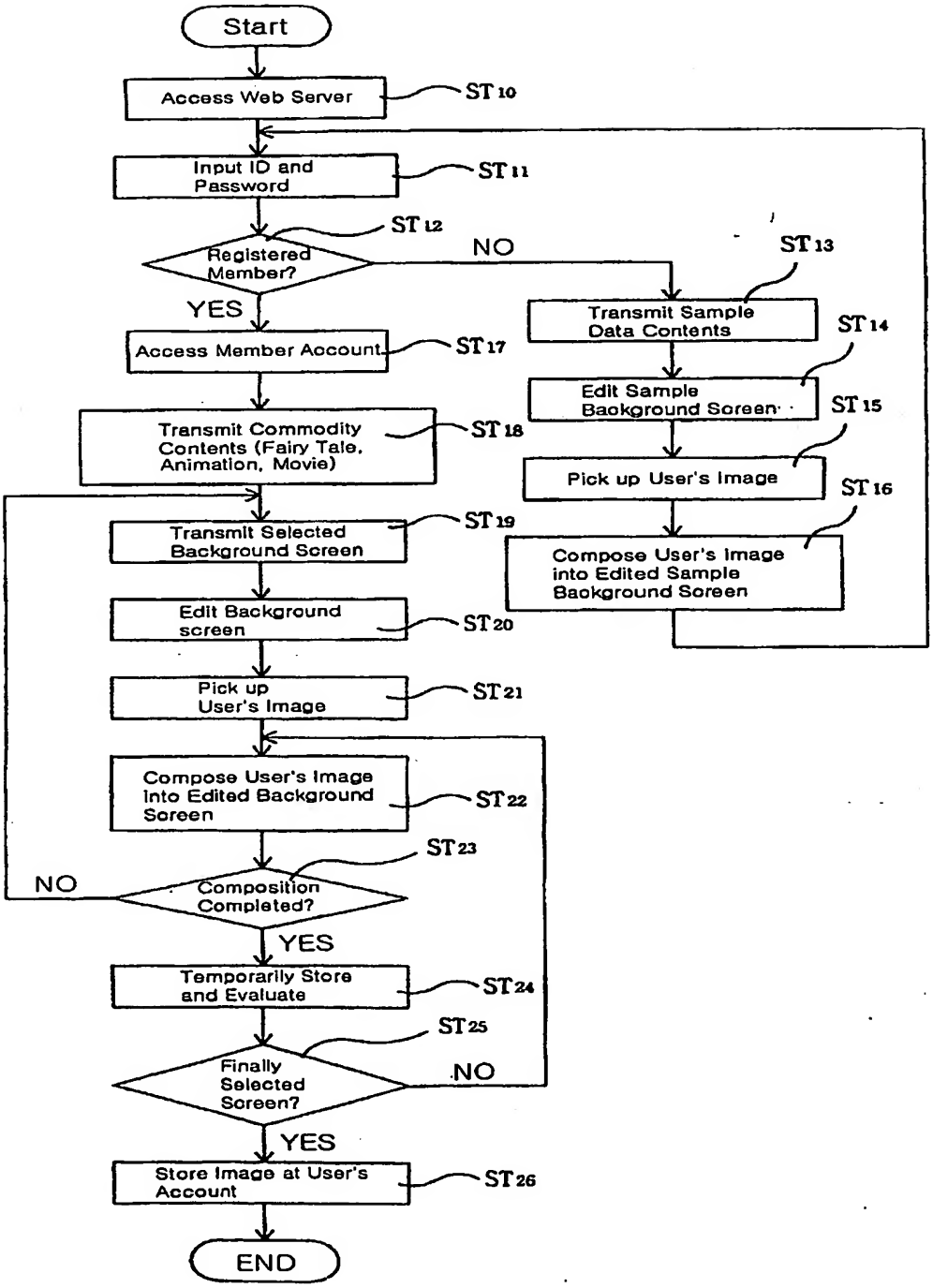
Start
Access Web Server
ST 10
Input ID and Password
ST 11
ST 12
Registered Member?
NO
ST 13
YES
Transmit Sample Data Contents
ST 14
Access Member Account
ST 17
Edit Sample Background Screen
ST 15
Transmit Commodity Contents (Fairy Tale, Animation, Movie)
ST 18
Pick up User's Image
ST 16
ST 19
Transmit Selected Background Screen
Compose User's Image into Edited Sample Background Screen
Edit Background screen
ST 20
Pick up User's Image
ST 21
Compose User's Image into Edited Background Screen
ST 22
ST 23
NO
Composition Completed?
YES
Temporarily Store and Evaluate
ST 24
ST 25
Finally Selected Screen?
NO
YES
Store Image at User's Account
ST 26
END

FIG.4a

FIG.4b

FIG. 4c

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR03/00736

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 G06F 17/60

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions since 1975

Electronic data base consulted during the internationl search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 2002-0331247 B(YOON, SEOK-HO) 21 March 2002 See the whole document	1-3
Y	KR 2002-0025448 A (ALLDOT SOLUTIONS CO. LTD) 4 April 2002 See the whole document	1-3
A	KR 2002-0007929 A(LEE, SOO-HO) 29 January 2002 See the whole document	1-3

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☐ See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
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